

REMARKS

In the Office Action dated June 17, 2004, the Examiner objected to claims 5 and 6; rejected claims 1-4, 7-15, 18, 20, 21-23, and 24 under 35 U.S.C. § 102(b) as being anticipated by Allen (U.S. Patent No. 5,205,173); rejected claims 5 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of Russo (U.S. Patent No. 5,531,099); rejected claims 17 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of Lander et al. (U.S. Patent No. 5,974,862); and rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of White (U.S. Patent No. 6,476,951).

By this Amendment, Applicant amends claim 5. Based on the following remarks, Applicant respectfully traverses the rejections of claims 1-24.

I. Rejections under 35 U.S.C. § 102(b)

In rejecting claims 1, 8-10, 14, 23, and 24, the Examiner asserts that Allen teaches

obtaining a first signal at a first location in the network (see col. 5, lines 48-66); obtaining a second signal sample at a second location in the network (see col. 5, lines 48-66); correlating the two signal samples (see col. 2, lines 45-65); and establishing the location of the injection point from the correlation result (see col. 2, lines 45-65). See *Office Action*, page 2, lines 16-20.

Applicant disagrees with the Examiner's interpretation of Allen for the following reasons.

First, Allen does not teach or suggest a network that involves the transmission of signals. Instead, Allen is directed to locating leaks in a pipeline. The pipeline is a

hollow component used to transport fluids, such as water. The pipe described in Allen is not a network. Accordingly, Allen cannot teach at least obtaining a first signal at a first location in the network and obtaining a second signal sample at a second location in the network, as asserted by the Examiner.

Second, Allen describes detecting leaks in sections of a pipe. *See e.g., Abstract and Title of Allen*. The reference does not teach or suggest establishing a location of an injection point, as asserted by the Examiner. Instead, the system and method described by Allen locates a position on a pipe that is allowing fluid to escape or leave the pipe. Not only is the flow of fluid within a section of pipe non-analogous to signals in a network, the leaking of this fluid from the pipe is completely divergent from an injection point of foreign signals in a network.

Because Allen does not support the rejection of claims 1 and 14, Applicant respectfully requests that the Examiner withdraw the rejection of these claims under 35 U.S.C. § 102(b) and allow the claims.

Claims 2-4, 7-13, and 15, 18, 20-24 depend from claims 1 and 14, respectively. As explained, claims 1 and 14 are distinguishable from Allen. Accordingly, it follows that claims 2-4, 7-13, 15, 18, and 20-24 are also distinguishable from this reference for at least the same reasons set forth in connection with claims 1 and 14. Therefore, Applicant requests that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Further, the Examiner did not address the recitations of claims 8-10, 23, and 24. In the Office Action, the Examiner rejects these claims for the same reasons set forth for claims 1 and 14. Claims 8-10, 23, and 24, however, includes recitations not presented

in claims 1 and 14. For example, the Examiner failed to address "sending the second signal sample to the node at the first location in a network," as recited in claim 9. As another example, the Examiner did not address "establishing a location of potential egress point at the location of the injection point," as recited in claim 23. Because the Examiner did not address each and every recitation in claims 8-10, 23, and 24, the rejection of these claims under 35 U.S.C. § 102(b) is improper and should be withdrawn.

Also, Allen does not teach or describe a node or sending signal samples to the node, and/or correlating the two signal samples at the node. Moreover, the reference fails to disclose establishing a location of a potential egress point at the location of an injection point. The only operation Allen's system is capable of performing is locating a leak in a section of a pipe transporting fluids.

For these additional reasons, the rejection of claims 1, 8-10, 23, and 24 is not supported by the cited art, and Applicant requests that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Also, Allen does not support the Examiner's assertion that the reference discloses calculating a propagation delay from the correlation result, calculating an offset as being a function of the propagation delay, finding a midpoint between the first location in the network and the second location in the network, estimating the location of the injection point by locating a point that is a distance equal to the offset from the midpoint. Notwithstanding the fact that Allen is associated with a pipeline and not a network, the reference determines the location of a leak based on a distance associated

with the location of a sensor placed on the pipeline, as opposed to an offset from a midpoint between the first and second locations of a network.

Additionally, Allen does not teach two signal samples that are bandwidth limited, as asserted by the Examiner. Indeed, the portion of Allen cited by the Examiner merely refers to clock signals for logic-based circuitry. These components and their operation are not related to bandwidth limited signal samples in a network.

Based on the foregoing remarks, the cited art does not support the rejection of claims 1-4, 7-15, 18, and 20-24 under 35 U.S.C. § 102(b) and Applicant requests that the rejection of these claims be withdrawn and the claims allowed.

II. Rejections under 35 U.S.C. § 103(b)

Claims 5 and 6 depend from claim 1. As explained, claim 1 is distinguishable from Allen. Accordingly, it follows that claims 5 and 6 are also distinguishable from this reference for at least the same reasons set forth in connection with claim 1. Further, Russo does not overcome the deficiencies of Allen. Russo discloses a system for detecting defects in a buried conduit. The references does not disclose determining a magnitude of an Ingress associated with an injection point of a network. Therefore, Applicant requests that the rejection of claims 5 and 6 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claims 17 and 19 depend from claim 14. As explained, claim 14 is distinguishable from Allen. Accordingly, it follows that claims 17 and 19 are also distinguishable from this reference for at least the same reasons set forth in connection with claim 14. Further, Lander et al. does not overcome the deficiencies of Allen.

Instead, Lander et al. is also limited to systems for detecting leaks in a pipeline, which is divergent from injection points of signals in a network. Therefore, Applicant requests that the rejection of claims 17 and 19 under 35 U.S.C. § 103(a) be withdrawn and the claims allowed.

Claim 16 also depends from claim 14. Accordingly, it follows that claim 16 is distinguishable from Allen for at least the same reasons set forth in connection with claim 14. Further, White does not overcome the deficiencies of Allen. White merely describes optical fibers used in communication systems. Therefore, Applicant requests that the rejection of claim 16 under 35 U.S.C. § 103(a) be withdrawn and the claim allowed.

Additionally, in rejecting claim 16, the Examiner states "Westrom et al. teach[es] the system as stated above except that the link is a fiber-optic link." See *Office Action*, page 4, lines 16-17. Applicant assumes the reference to "Westrom et al." is an inadvertent error and that the Examiner intended to refer to Allen. Applicant, however, respectfully requests clarification that "Westrom et al." is not used to support the basis of rejecting claim 16 under 35 U.S.C. § 103(a).

II. Conclusion

In view of the foregoing remarks, Applicant submits that the cited art does not anticipate or render obvious claims 1-24, and therefore request the Examiner's reconsideration and reexamination of the application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 07-2347.

Respectfully submitted,

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